

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) A memory management device for managing a memory space of at least one persistent-memory device, comprising:
  - a memory allocation unit adapted to communicate with at least one application device and to allocate at least one first part of said ~~memory space-persistent-memory device~~ to said application device to write a first working data structure comprising a plurality of working data blocks to the ~~memory space-persistent-memory device~~ and to write a second working data structure comprising a copy of the plurality of working data blocks, wherein the second working data structure comprises a copy of the first working data structure in the same ~~memory space-persistent-memory device~~ as the first working data structure, wherein said allocation unit is further adapted to communicate with at least one file system device, and to allocate on request from said application device or from said file system device said first part of said ~~memory space-persistent-memory device~~ to said file system; wherein the ~~persistent-memory-persistent-memory device~~ is used as a write cache memory for said file system device.
2. (currently amended) A memory management device according to claim 1, wherein said memory allocation unit is adapted to maintain a memory allocation table at a current status, said memory allocation table assigning at least one memory address representing a defined part of said ~~memory space-persistent-memory device~~ to either said application device or to said file system device.
3. (previously presented) A memory management device according to claim 2, further comprising a processor and a memory, wherein said memory allocation unit is implemented in the form of at least one first executable file contained in said memory.

4. (currently amended) A memory management device according to ~~claim 3,~~ claim 1, wherein said ~~memory device is Magnetoresistance-based RAM (MRA)~~ is a persistent-memory device, in particular said ~~persistent-memory device~~ persistent-memory device comprises a magnetoresistance-based RAM (MRA) device.

5. (currently amended) A file system device comprising a file allocation unit adapted to maintain a file allocation table at a current status, said file allocation table assigning at least one disk space address to at least one file, wherein said file allocation unit is adapted to communicate with a memory management device that is related to a persistent-memory device and to include an address of at least one first memory space of said persistent-memory device in the maintenance of said file allocation table, wherein the file system device is configured to convert a copy of a first working data structure to a file data structure and to write the file data structure to a secondary storage medium, wherein the copy of the first working data structure is written to ~~a same memory space~~ the same persistent-memory device as the first working data structure, and wherein the ~~persistent memory~~ persistent-memory device is used as a write cache memory for said file system device.

6. (previously presented) A file system device according to claim 5, further comprising a processor and a memory, wherein said file allocation unit is implemented in the form of at least one second executable file contained in said memory.

7. (currently amended) An application device, comprising a persistent-memory device connected to a processor, and a data management unit adapted to manipulate data in said ~~persistent memory~~ persistent-memory device, wherein said data management unit is adapted to write at least one third executable file to said ~~persistent memory~~ persistent-memory device, or to provide the file system with a reference to at least one third executable file in said file system, such that by executing said third executable file said processor is adapted to transform a copy of a first working data structure into a predetermined data-sequence form, wherein the copy of the first working data structure is

stored in a same ~~memory space~~ persistent-memory device as the first working data structure; and wherein the ~~persistent-memory~~ persistent-memory device is used as a write cache memory for a file system device.

8. (currently amended) An application device according to claim 7, wherein said data management unit is provided in the form of least one fourth executable file in a memory, particularly, in said ~~persistent-memory~~ persistent-memory device, wherein said persistent-memory device is other than flash memory.

9. (canceled)

10. (currently amended) A data processing system, comprising a memory management device for managing a memory space of at least one persistent-memory device, comprising a memory allocation unit adapted to communicate with at least one application device and to allocate at least one first part of said ~~memory space~~ persistent-memory device to said application device to write a first working data structure comprising a plurality of working data blocks to the ~~memory space~~ persistent-memory device and to write a second working data structure comprising a copy of the plurality of working data blocks, wherein the second working data structure comprises a copy of the first working data structure in the same ~~memory space~~ persistent-memory device as the first working data structure, wherein said allocation unit is further adapted to communicate with at least one file system device, and to allocate on request from said application device or from said file system device said first part of said memory space to said file system; wherein the ~~persistent-memory~~ persistent-memory device is used as a write cache memory for said file system device.

11. (currently amended) A method for managing memory space of a persistent-memory device, comprising:  
allocating at least one first part of said ~~memory space~~ persistent-memory device to a file system device; writing a first working data structure comprising a plurality of working data blocks to the ~~memory space~~ persistent-memory device;

writing a second working data structure comprising a copy of the plurality of working data blocks, wherein the second working data structure comprises a copy of the first working data structure in the same ~~memory space~~ persistent-memory device as the first working data structure; and

converting the second working data structure into a predetermined data-sequence form;

wherein the ~~persistent memory~~ persistent-memory device is used as a write cache memory for said file system device.

12. (currently amended) A method according to claim 11, wherein said allocating step comprises a step of blocking a writing access to said first part of said ~~memory space~~ persistent-memory device.

13. (currently amended) A method according to claim 12, wherein said allocating step comprises a step of giving away to said file system device the power of reading access to said first part of said ~~memory space~~ persistent-memory device.

14. (currently amended) A method according to claim 11, comprising a step of deallocating said first part of said ~~memory space~~ persistent-memory device to a memory management device.

15. (currently amended) A method according to claim 14, wherein said allocating step or said deallocating step comprises transmitting an address range defining said first part of said ~~memory space~~ persistent-memory device from said memory management device to said file system device or, respectively, vice versa.

16. (currently amended) A method according to claim 14, wherein said deallocating step is performed for said first part of said ~~memory space~~ persistent-memory device given the condition that first data contained in said first part of said ~~memory space~~ persistent-memory device is stored in the form of file data in a second part of said ~~memory space~~ persistent-memory device, said file data having a predetermined file structure, and that

said second part of said ~~memory space~~persistent-memory device is allocated to said file system device.

17. (currently amended) A method according to claim 16, wherein said deallocating step is performed for said second part of said ~~memory space~~persistent-memory device given the condition that said file data has been written to a secondary storage medium.

18. (previously presented) A method for write-caching first data worked on by an application, said first data being contained in a first part of a memory space of a persistent-memory device, comprising a step of performing a memory managing method according to claim 17.

19. (previously presented) A write-caching method according to claim 18, comprising, after said allocating step, a step of sending a confirmation message from said file system device to said application device.

20. (currently amended) A write-caching method according to claim 18, wherein said first data is a copy of third data contained in a third part of said ~~memory space~~previously presented, said write-caching method comprising, before performing said memory managing method, a step of copying said third data to said first ~~memory space~~previously presented.

21. (currently amended) A write-caching method according to claim 18, comprising the steps of

allocating a fourth part of said ~~memory space~~previously presented to said application device for an executable file or dynamic link library that is adapted to converting said first data into file data

writing said executable file or dynamic link library to said fourth part of said ~~memory space~~previously presented

allocating said fourth part of said ~~memory space~~previously presented to said file system device.

22. (previously presented) A write-caching method according to claim 21, comprising a step of transforming said first data into said file data with the aid of said executable file or said dynamic link library.

23. (previously presented) A write-caching method according to claim 22, wherein said transforming step is initiated by said file system device.

24. (currently amended) A write-caching method according to claim 23, comprising, after said transforming step, a step of deallocating said fourth part of said ~~memory space~~ previously presented to said memory management device.

25. (previously presented) A method for saving data worked on by an application device to a file on a secondary storage medium, comprising performing a write-caching method according to claim 18, and further comprising writing said file data to said secondary storage medium.